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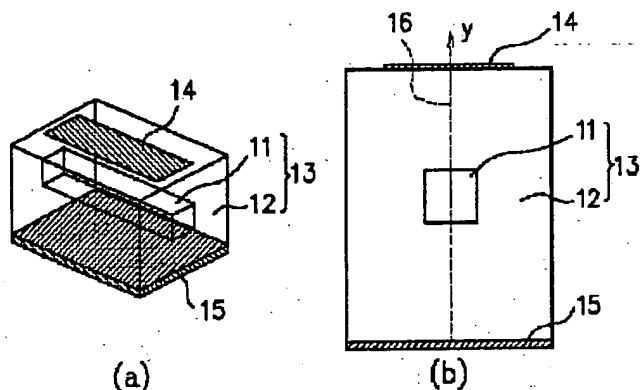
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TITLE : TUNABLE OPTICAL ATTENUATOR
AND OPTICAL SWITCH



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a small-sized tunable optical attenuator having a simple configuration and a large tunable attenuation amt. and to obtain a small-size optical switch having a simple configuration and small cross talk.

SOLUTION: A heater 14 and a heat radiating substrate 15 are disposed respectively on the upper and lower faces of an optical waveguide 13 consisting of a core 11 and a clad 12 so that heat-induced core region having a higher refractive index than the surrounding region in a part of the clad 12 by the temp. gradient and the thermo-optical effect caused between the heater 14 and the heat radiating substrate 15. Thereby, the conducting mode in the core 11 of the optical waveguide is optically coupled with the radiating mode in the heat-induced core region so as to attenuate the propagating light in the core 11 of the optical waveguide.

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